In The Claims:

Kindly substitute the following for pending Claim 1:

1.   (Twice Amended) An antenna for an equatorial satellite constellation for use on a commercial satellite terminal, comprising:

a generally circular rotating plate for mechanically scanning for wave signals in the azimuth direction;

a plurality of radiation elements positioned on said circular plate for electronically scanning for wave signals in elevation; and

a multiplexor associated with each of said plurality of radiation elements for consolidating the individual wave signals received at each of said plurality of radiation elements to an analog bit stream;

an analog to digital converter for converting said analog bit stream to a digital bit stream;

circuitry for forming multiple digital beam forms from said digital bit stream; and

a digital receiver for converting said digital beam forms into an information signal;

wherein the antenna is able to connect to a second equatorial satellite in the constellation before breaking from a first equatorial satellite during a hand-over.

Kindly substitute the following for pending Claim 7:

7.   (Twice Amended) A phased array antenna for an equatorial satellite constellation, comprising:

a rotating plate for mechanically scanning for a wavefront of wave signals in an azimuth direction;

a plurality of radiation elements positioned on said rotating plate for receiving a plurality of individual waves;

apparatus for positioning said radiation elements such that a wavefront of an intended signal will be in alignment with a major axis of said plurality of radiation elements;

a plurality of multiplexer devices, each in communication with one of said plurality of radiation elements for converting said plurality of received individual waves into an analog bit stream;

an analog to digital converter for converting said analog bit stream to a digital

bit stream;

a device for forming multiple digital beam forms from said digital bit stream; and

a digital receiver for processing said multiple digital beams;

wherein the antenna is able to connect to a second equatorial satellite in the constellation before breaking from a first equatorial satellite during a hand-over.

Kindly substitute the following for pending Claim 13:

13.   (Twice Amended)   A method for forming multiple beams at a commercial satellite antenna comprising:

providing a plurality of radiation elements on a surface of said commercial satellite antenna for receiving a plurality of individual wave signals;

rotating said plurality of radiation elements such that a wavefront of said plurality of individual wave signals is in alignment with a major axis of said plurality of radiation elements;

consolidating said plurality of wave signals into a single analog signal;

forming multiple beam forms from said single analog signal; and

transmitting said multiple beam forms to a plurality of satellites in an equatorial satellite constellation;

whereby the antenna is able to connect to a second equatorial satellite in the constellation before breaking from a first equatorial satellite during a hand-over.

REMARKS

The Examiner rejected claims 1, 2, 4-11, 13-23, and 25-37 under 35 U.S.C. §103(a) as obvious over Miura, et al. in view of Chang, et al. and Barrett, et al. The Examiner also rejected claims 3, 12, and 24 under 35 U.S.C. §103(a) as obvious over Miura, et al. in view of Chang, et al. and Barrett, et al. as applied to claims 1, 2, 4-11, 13-23, and 25-37, and further in view of Ajioka.

It is submitted that none of these references teach or suggest either alone or in combination, Applicants' claimed invention. Applicants' invention, as required by independent claims 1, 7, 13, 21, 30, and 37, each require use of Applicants' claimed antenna with an equatorial satellite constellation. As set forth in the application at page 16, lines 6-17, in "equitorial non-geosyncronous constellations, users can use the disclosed terminal to avoid interruption during handover." Therefore, Applicants' claimed antenna is configured to

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